

### **REMARKS**

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The non-final Office Action dated May 26, 2010 has been received and its contents carefully reviewed.

Claims 1-31 are currently pending, of which claims 8-31 are withdrawn from consideration. Claim 1 has been amended. Reexamination and reconsideration of the pending claims is respectfully requested.

In the non-final Office Action, claims 1-3 are rejected under 35 U.S.C. § 102(b) as being anticipated by Komiya (U.S. Patent Application Publication No. 2002/0158587, hereinafter referred as Komiya) in view of Kochever (U.S. Patent No. 2890332, hereinafter referred as) and Gao et al. (US Pub: 2002/0051893, hereinafter referred as Gao), and claims 4-7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Komiya in view of Kocherver and Gao et al. as applied in claims 1-3, further in view of Morosawa (U.S. Patent Application Publication No. 2006/0139251, hereinafter referred as Morosawa). These rejections are respectfully traversed and reconsideration is requested.

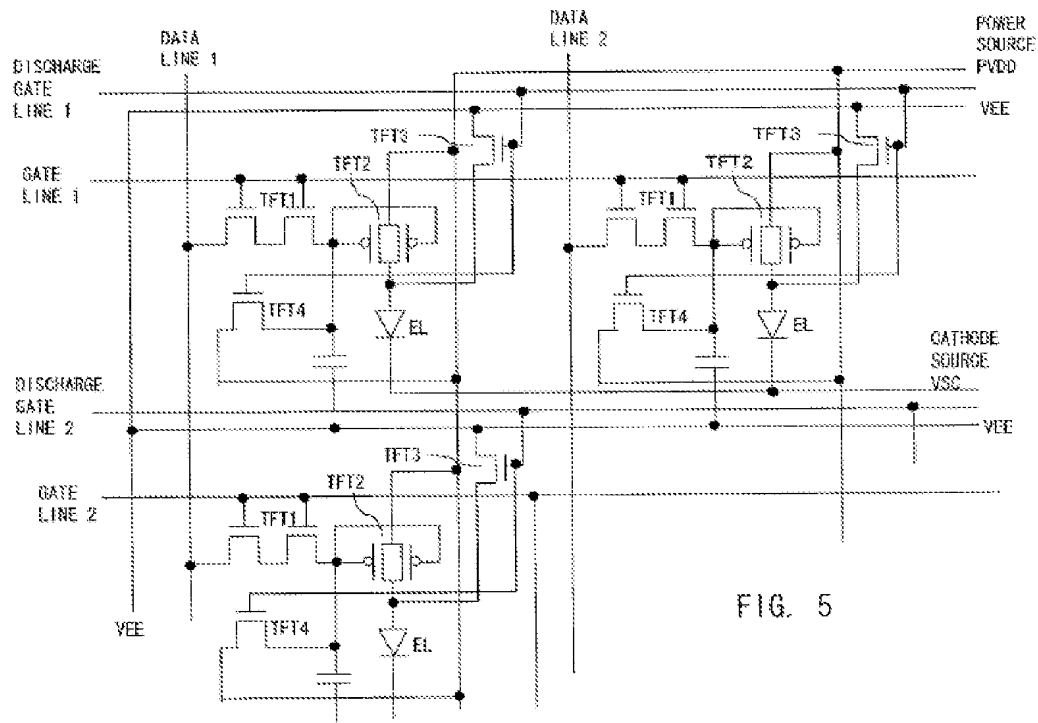
Claim 1 is allowable over the cited references in that claim 1 recites a combination of elements including, for example, “a plurality of drive voltage supply lines; a plurality of compensation voltage supply lines; EL cells at each crossing of a plurality of data lines and a plurality of gate lines in a matrix, wherein the EL cells emit light in response to currents applied from the drive voltage supply lines; driving thin film transistors connected between the EL cells and compensation voltage supply lines that control the current applied to the EL cells; and a bias switch, connected between a N-1th compensation voltage supply line of the plurality of compensation voltage supply lines and a control terminal of the driving TFT connected to a Nth compensation voltage supply line of the plurality of compensation voltage supply lines to apply a negative bias voltage to the driving TFT connected to the Nth compensation voltage supply line, thereby compensating for a change of threshold voltage of the driving TFT when a scan pulse is supplied to a N-1th gate line of the plurality of gate lines, wherein the bias switch is controlled by the scan pulse supplied to the N-1th gate line.” None of the cited references, singly or in combination, teaches or suggests at least this feature of the claimed invention. Accordingly, Applicants respectfully submit that claim 1, and claims 2-7, which depend therefrom, are allowable over the cited references.

On page 3 of the Office Action, the Examiner asserted that Komiya does not teach a bias switch but rather uses a conventional switch to operate the compensation mechanism between the adjacent gate lines and the pixel structures (see Fig. 5), and Kochevar teaches a bias switch as a function circuit component having the capability to be adapted by any electric system (i.e. the demonstration of the working parameter of the bias switch and its implementation within a display system as a complete component), therefore it would have been obvious for one of ordinary skill in the art at the time the invention was made to have used the bias control circuitry of Kochevar to control the switching circuitry in Komiya (i.e. the bias switch for the N-I line where bias voltage is applied to the EL circuit) in order to expand the possibility of circuitry implementation of applying biased voltage control (see Kochevar Co.; 1, Lines 15-45).

However, Komiya does not only teach a bias switch controlled by a scan pulse supplied to a N-1th gate line (that is, a previous gate line) and a driving TFT controlled by a negative bias voltage from the bias switch.

Komiya discloses a driving TFT (TFT2), a discharging TFT (TFT3) and a control TFT (TFT4). As shown in Fig. 5, the discharging TFT and the control TFT (TFT4) are not controlling a scan pulse supplied to a N-1th gate line (that is, a previous gate line) but a control signal from a discharge gate line 1 which is not the scan pulse. Furthermore, since the control TFT (TFT4) of Komiya is connected with the positive power source (PVDD), it is impossible to supply a negative bias voltage to the driving TFT (TFT2). Accordingly, Komiya cannot compensate for a change of threshold voltage of the driving TFT.

[Fig. 5 of Komiya]



Also, Kochevar teaches a bias switch permitting rapid alternation between two sources of bias voltage but does not teach a bias switch applying a negative bias voltage to the driving TFT connected to the Nth compensation voltage supply line, thereby compensating for a change of threshold voltage of the driving TFT. Unfortunately, Kochevar discloses a fundamentally different type of CRT than the organic EL pixel circuit of Komiya. Kochevar is limited to disclose a bias switch in CRT display system using vacuum tubes which does not operate on organic EL pixel circuit, as does the organic EL display device of Komiya, but operates on CRT display. This significant difference in operational characteristics of Komiya and Kochevar is not taken into consideration in this rejection. Furthermore, Kochevar also fails to teach a bias switch controlled by a scan pulse supplied to a N-1th gate line (that is, a previous gate line) and a driving TFT controlled by a negative bias voltage from the bias switch.

On pages 3 and 4 of the Office Action, the Examiner asserted that Komiya and Kochevar do not explicitly teach a negative bias voltage, but Gao et al. teaches a negative bias voltage can be used in a context of OLED design (i.e. the -3.5 V ITO material is taught by Gao to create superior performance in the OLED driving System) (see Gao [0081]), therefore it would have been obvious for one of ordinary skill in the art at the time the

invention was made to have used the negative bias voltage of Gao in the bias voltage control of Kochevar as this create superior performance in the OLED system (see Gao [0081]).

However, the solid-state light emitting device of Gao is corresponding to the EL cell of the of the claimed invention. In the paragraph [0081] of Gao, the negative voltage is not applied to the driving TFT but an ITO anode of the light emitting device (EL cell). Accordingly, Gao fails to teach the negative bias voltage which is applied to the driving TFT.

Applicants respectfully submit that Kochevar or Gao does not cure the failure of Komiya to teach or suggest the bias switch, connected between a N-1th compensation voltage supply line of the plurality of compensation voltage supply lines and a control terminal of the driving TFT connected to a Nth compensation voltage supply line of the plurality of compensation voltage supply lines to apply a negative bias voltage to the driving TFT connected to the Nth compensation voltage supply line, thereby compensating for a change of threshold voltage of the driving TFT when a scan pulse is supplied to a N-1th gate line of the plurality of gate lines, wherein the bias switch is controlled by the scan pulse supplied to the N-1th gate line, as now recited in claim 1. Similarly, Morosawa either separately or combined with any one of Komiya, Kochevar and Gao, does not cure the failure of Komiya so as to teach or suggest all of the features now recited in independent claim 1.

Accordingly, Applicants respectfully submit that claim 1, and claims 2-7, which depend from claim 1 are patentable over Komiya, Kochevar, Gao and Morosawa because any one of them fails to teach, either expressly or inherently, at least these features of the claimed invention.

Applicants believe the application is in condition for allowance and early, favorable action is respectfully solicited.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911.

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Respectfully submitted,

/Eric J. Nuss/

Eric J. Nuss

Registration No.: 40,106

McKENNA LONG & ALDRIDGE LLP

1900 K Street, N.W.

Washington, DC 20006

(202) 496-7500

Attorneys for Applicant